

In the Claims:

Please amend the claims as indicated below:

1. (Currently amended) A system, comprising:

a first node of a distributed store comprising a primary state of session data configured for access by a plurality of application servers, wherein the session data provides state information for each of a plurality of sessions, wherein each session involves a plurality of application level interactions between a client and one or more of the plurality of application servers, wherein for each session the session data indicates the state of the application level interactions between the client and the one or more application servers for that session, and wherein the session data comprises a current version of a plurality of attributes;

another node comprising a back-up instance of the primary state, wherein the back-up instance of the primary state comprises a back-up version of the plurality of attributes in the session data of the primary state;

wherein the system is configured to:

compare the primary state to a benchmark version of the primary state to ~~generate a subset of~~ determine one or more of the attributes of the session data that have been modified in the current version of the plurality of attributes in the primary state, wherein the benchmark version of the primary state comprises a previous version of the plurality of attributes in the session data of the primary state; and

synchronize the back-up version of the plurality of attributes in the back-up instance of the primary state on the other node with the current

version of the plurality of attributes in the primary state, using the subset of the attributes of the session data wherein, to synchronize the back-up version of the plurality of attributes in the back-up instance of the primary state on the other node with the current version of the plurality of attributes in the primary state, the system is configured to:

send the determined one or more of the attributes of the session data that have been modified to the other node as modified attributes of the session data, wherein unmodified attributes of the session data are not sent to the other node; and

update respective attributes in the plurality of attributes in the back-up instance of the primary state according to the modified attributes.

2. (Currently amended) The system as recited in claim 1, wherein, to compare the primary state to the benchmark version of the primary state, the system is further configured to perform binary differencing of a binary representation of the primary state and a binary representation of the benchmark version of the primary state to determine the modified attributes, wherein, to perform said binary differencing, the system is configured to iteratively compare n-bit portions of the binary representation of the primary state to corresponding n-bit portions of the binary representation of the benchmark version of the primary state to determine which attributes differ between the primary state and the benchmark of the primary state, wherein n is a positive integer.

3. (Canceled)

4. (Currently amended) The system as recited in claim 1, wherein, to compare the primary state to a benchmark version of the primary state, the system is further configured to perform object graph differencing of an object graph representation of the

primary state and an object graph representation of the benchmark version of the primary state to determine the modified attributes, wherein the object graph representation of the primary state is a directed graph representation of the current version of the plurality of attributes in the primary state, wherein the object graph representation of the benchmark version of the primary state is a directed graph representation of the previous version of the plurality of attributes in the benchmark version of the primary state.

5. (Currently amended) The system as recited in claim 4, ~~wherein the attributes comprise objects organized according to an object graph representation, wherein, to perform object graph differencing, one or more objects in the object graph representation of the primary state are compared to corresponding instances of objects in an object graph representation of the benchmark of the primary state to identify the modified attributes of the primary state~~ the system is further configured to compare structure of the directed graph representation of the current version of the plurality of attributes in the primary state to structure of the directed graph representation of the previous version of the plurality of attributes in the benchmark version of the primary state to identify one or more differences between the primary state and the benchmark version of the primary state, wherein the differences between the primary state and the benchmark version of the primary state correspond to the one or more of the attributes of the session data that have been modified in the current version of the plurality of attributes in the primary state.

6. (Currently amended) The system as recited in claim 1, wherein the another node comprising ~~[[a]]~~ the back-up instance of the primary state is another node of the distributed store.

7. (Currently amended) A system comprising:

a distributed store node comprising a primary state of session data configured for access by a plurality of application servers, wherein the session data provides state information for each of a plurality of sessions, wherein each session involves a plurality of application level interactions between a

client and one or more of the plurality of application servers, wherein for each session the session data indicates the state of the application level interactions between the client and the one or more application servers for that session, and wherein the session data comprises a current version of a plurality of attributes, wherein the plurality of attributes include mutable attributes and immutable attributes;

another node comprising a back-up instance of the primary state, wherein the back-up instance of the primary state comprises a back-up version of the plurality of attributes in the session data of the primary state;

wherein the system is configured to:

~~generate~~ determine a set of the plurality of attributes that ~~are~~ includes the mutable attributes and does not include the immutable attributes for use in synchronizing the back-up instance of the primary state with the primary state; and

synchronize the back-up version of the plurality of attributes in the back-up instance of the primary state on the other node with the current version of the plurality of attributes in the primary state, wherein only the ~~according to the generated attributes in the set of the mutable attributes are used in said synchronization of the session data;~~

wherein, to synchronize the back-up version of the plurality of attributes in the back-up instance of the primary state on the other node with the current version of the plurality of attributes in the primary state, the system is configured to:

determine one or more of the attributes of the session data that

have been modified in the current version of the plurality of attributes in the primary state;

send the one or more of the attributes of the session data that have been modified to the other node as modified attributes of the session data, wherein unmodified attributes of the session data are not sent to the other node; and

update respective attributes in the plurality of attributes in the back-up instance of the primary state according to the received modified attributes of the session data.

8. (Currently amended) The system as recited in claim 7, wherein, to determine one or more of the attributes of the session data that have been modified in the current version of the plurality of attributes in the primary state, the system is further configured to compare a current version of the set of the mutable attributes in the primary state to a previous version of the set of attributes in a benchmark version of the primary state ~~to determine a subset of the attributes of the session data that have been modified in the primary state~~, wherein the benchmark version of the primary state comprises a previous version of the plurality of attributes in the session data of the primary state.

9. (Currently amended) The system as recited in claim 8, wherein, to compare a current version of the set of attributes in the primary state to a previous version of the set of attributes in a benchmark version of the primary state, the system is further configured to perform binary differencing of a binary representation of the primary state and a binary representation of the benchmark version of the primary state ~~to locate~~ determine the modified attributes, wherein, to perform said binary differencing, the system is configured to iteratively compare n-bit portions of the binary representation of the primary state to corresponding n-bit portions of the binary representation of the benchmark version of the primary state to determine which attributes differ between the primary state and the benchmark of the primary state, wherein n is a positive integer.

10. (Currently amended) The system as recited in claim 8, wherein, to compare a current version of the set of attributes in the primary state to a previous version of the set of attributes in a benchmark version of the primary state, the system is further configured to perform object graph differencing of an object graph representation of the primary state and an object graph representation of the benchmark version of the primary state to locate determine the modified attributes, wherein the object graph representation of the primary state is a directed graph representation of the current version of the plurality of attributes in the primary state, wherein the object graph representation of the benchmark version of the primary state is a directed graph representation of the previous version of the plurality of attributes in the benchmark version of the primary state.

11. (Currently amended) A system comprising:

a distributed store node comprising a primary state of session data configured for access by a plurality of application servers, wherein the session data provides state information for each of a plurality of sessions, wherein each session involves a plurality of application level interactions between a client and one or more of the plurality of application servers, wherein for each session the session data indicates the state of the application level interactions between the client and the one or more application servers for that session, and wherein the session data comprises a current version of a plurality of attributes;

another node comprising another instance of the primary state, wherein the other instance of the primary state comprises a different version of the plurality of attributes in the session data of the primary state;

means for determining a set of the attributes of the session data that differ between the primary state and the other instance of the primary state; and

means for synchronizing the version of the plurality of attributes in the other instance of the primary state with the current version of the plurality of attributes in the primary state using the set of the attributes of the session data that differ between the primary state and the other instance of the primary state, wherein said means for synchronizing comprise means for sending the determined set of the attributes of the session data to the other node as modified attributes of the session data, wherein unmodified attributes of the session data are not sent to the other node, and means for updating respective attributes in the plurality of attributes in the other instance of the primary state according to the set of attributes.

12. (Currently amended) The system as recited in claim 11, wherein the means for determining a set of the attributes comprise means for comparing the primary state to a benchmark version of the primary state to determine attributes of the session data that have been modified in the current version of the plurality of attributes in the primary state, wherein the benchmark version of the primary state comprises a previous version of the plurality of attributes in the session data of the primary state.

13. (Currently amended) The system as recited in claim 12, wherein, ~~to compare~~ said means for comparing the primary state to a benchmark version of the primary state; the means further comprises means for performing binary differencing of a binary representation of the primary state and a binary representation of the benchmark version of the primary state to locate determine the modified attributes, wherein, to perform said binary differencing, the system is configured to iteratively compare n-bit portions of the binary representation of the primary state to corresponding n-bit portions of the binary representation of the benchmark version of the primary state to determine which attributes differ between the primary state and the benchmark of the primary state, wherein n is a positive integer.

14. (Currently amended) The system as recited in claim 12, wherein, ~~to compare~~ said means for comparing the primary state to a benchmark version of the primary state;

~~the means further comprises~~ means for performing object graph differencing of an object graph representation of the primary state and an object graph representation of the benchmark version of the primary state to locate the modified attributes, wherein the object graph representation of the primary state is a directed graph representation of the current version of the plurality of attributes in the primary state, wherein the object graph representation of the benchmark version of the primary state is a directed graph representation of the previous version of the plurality of attributes in the benchmark version of the primary state.

15. (Currently amended) A method, comprising:

providing access to a primary state of session data comprised by a distributed store node to a plurality of application servers, wherein the session data provides state information for each of a plurality of sessions, wherein each session involves a plurality of application level interactions between a client and one or more of the plurality of application servers, wherein for each session the session data indicates the state of the application level interactions between the client and the one or more application servers for that session, and wherein the session data comprises a current version of a plurality of attributes;

comparing the primary state to a benchmark version of the primary state to ~~generate a subset of~~ determine one or more of the attributes of the session data that have been modified in the current version of the plurality of attributes in the primary state, wherein the benchmark version of the primary state comprises a previous version of the plurality of attributes in the session data of the primary state; and

synchronizing ~~the~~ a different version of the plurality of attributes in another instance of the primary state ~~comprised by another~~ on the other node with the current version of the plurality of attributes in the primary state; using

~~the subset of the attributes of the session data~~

wherein said synchronizing comprises:

sending the determined one or more of the attributes of the session data that have been modified to another node as modified attributes of the session data, wherein unmodified attributes of the session data are not sent to the other node; and

updating respective attributes in the plurality of attributes in the other instance of the primary state according to the received modified attributes.

16. (Currently amended) The method as recited in claim 15, wherein said comparing the primary state to a benchmark version of the primary state comprises performing binary differencing of a binary representation of the primary state and a binary representation of the benchmark version of the primary state to determine the modified attributes, wherein said performing binary differencing comprises iteratively comparing n-bit portions of the binary representation of the primary state to corresponding n-bit portions of the binary representation of the benchmark version of the primary state to determine which attributes differ between the primary state and the benchmark of the primary state, wherein n is a positive integer.

17. (Canceled)

18. (Currently amended) The method as recited in claim 15, wherein said comparing the primary state to a benchmark version of the primary state comprises performing object graph differencing of an object graph representation of the primary state and an object graph representation of the benchmark version of the primary state to determine the modified attributes, wherein the object graph representation of the primary state is a directed graph representation of the current version of the plurality of attributes

in the primary state, wherein the object graph representation of the benchmark version of the primary state is a directed graph representation of the previous version of the plurality of attributes in the benchmark version of the primary state.

19. (Currently amended) The method as recited in claim 18, ~~wherein the attributes comprise objects organized according to an object graph representation, wherein performing object graph differencing comprises comparing one or more objects in the object graph representation of the primary state to corresponding instances of objects in an object graph representation of the benchmark of the primary state to identify the modified attributes of the primary state~~ comparing structure of the directed graph representation of the current version of the plurality of attributes in the primary state to structure of the directed graph representation of the previous version of the plurality of attributes in the benchmark version of the primary state to identify one or more differences between the primary state and the benchmark version of the primary state, wherein the differences between the primary state and the benchmark version of the primary state correspond to the one or more of the attributes of the session data that have been modified in the current version of the plurality of attributes in the primary state.

20. (Original) The method as recited in claim 15, wherein the other instance of the primary state is a backup of the primary state.

21. (Currently amended) A tangible computer accessible medium, comprising software instructions executable to implement:

providing access to a primary state of session data comprised by a distributed store node to a plurality of application servers, wherein the session data provides state information for each of a plurality of sessions, wherein each session involves a plurality of application level interactions between a client and one or more of the plurality of application servers, wherein for each session the session data indicates the state of the application level interactions between the client and the one or more application servers for

that session, and wherein the session data comprises a current version of a plurality of attributes;

comparing the primary state to a benchmark version of the primary state to ~~generate a subset of~~ determine one or more of the attributes of the session data that have been modified in the current version of the plurality of attributes in the primary state, wherein the benchmark version of the primary state comprises a previous version of the plurality of attributes in the session data of the primary state; and

synchronizing ~~the~~ a different version of the plurality of attributes in another instance of the primary state ~~comprised by another~~ on the other node with the current version of the plurality of attributes in the primary state; ~~using the subset of the attributes of the session data~~

wherein, in said synchronizing, the software instructions are executable to implement:

sending the determined one or more of the attributes of the session data that have been modified to another node as modified attributes of the session data, wherein unmodified attributes of the session data are not sent to the other node; and

updating respective attributes in the plurality of attributes in the other instance of the primary state according to the received modified attributes.

22. (Currently amended) The computer accessible medium as recited in claim 21, wherein, in said comparing the primary state to a benchmark version of the primary state, the software instructions are executable to implement ~~comprises~~ performing binary differencing of a binary representation of the primary state and a binary representation of

the benchmark version of the primary state to determine the modified attributes, wherein said performing binary differencing comprises iteratively comparing n-bit portions of the binary representation of the primary state to corresponding n-bit portions of the binary representation of the benchmark version of the primary state to determine which attributes differ between the primary state and the benchmark of the primary state, wherein n is a positive integer.

23. (Canceled)

24. (Currently amended) The computer accessible medium as recited in claim 21, wherein, in said comparing the primary state to a benchmark version of the primary state, the software instructions are executable to implement ~~comprises~~ performing object graph differencing of an object graph representation of the primary state and an object graph representation of the benchmark version of the primary state to determine the modified attributes, wherein the object graph representation of the primary state is a directed graph representation of the current version of the plurality of attributes in the primary state, wherein the object graph representation of the benchmark version of the primary state is a directed graph representation of the previous version of the plurality of attributes in the benchmark version of the primary state.

25. (Currently amended) The computer accessible medium as recited in claim 24, ~~wherein the attributes comprise objects organized according to an object graph representation, wherein, in said performing object graph differencing, the software instructions are executable to implement comprises comparing one or more objects in the object graph representation of the primary state to corresponding instances of objects in an object graph representation of the benchmark of the primary state to identify the modified attributes of the primary state~~ comparing structure of the directed graph representation of the current version of the plurality of attributes in the primary state to structure of the directed graph representation of the previous version of the plurality of attributes in the benchmark version of the primary state to identify one or more differences between the primary state and the benchmark version of the primary state,

wherein the differences between the primary state and the benchmark version of the primary state correspond to the one or more of the attributes of the session data that have been modified in the current version of the plurality of attributes in the primary state.

26. (Previously presented) The computer accessible medium as recited in claim 21, wherein the other instance of the primary state is a backup of the primary state.